

.....Principal Investigator *Prah, James D.*

BIOGRAPHICAL SKETCH

NAME James D. Prah	POSITION TITLE Research Psychologist		
EDUCATION <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Maryland (College Park, MD)	B.A.	1970	Psychology
Trinity University (San Antonio, TX)	M.A.	1972	Psychology
University of North Carolina at Chapel Hill	Ph.D.	1989	Experimental Psychology

RESEARCH AND PROFESSIONAL EXPERIENCE:

1974-1975 Laboratory Technician, U. S. EPA.

1976 to present Research Psychologist, U. S. EPA.

1990-1991 Research Assistant Professor, Dept. of Psychology,
University of N. Carolina at Chapel Hill.

1992-1999 Research Assistant Professor, School of Dentistry, University of North Carolina at Chapel Hill.

HONORS:

Special Act Award for Pharmacokinetic Collaboration with CDC (1992).

Special Act Award for Methyl Tertiary Butyl Ether research (1993).

Bronze Medal for Planning and Completion of Health Research On MTBE (Received September, 1995)

Special Act Award for Contribution for Review of the RFC for Manganese (1995).

Scientific and Technological Achievement Award for MTBE Pharmacokinetic Research. 2004.

MEMBERSHIPS:

Full Memberships Society of Toxicology, Association of Chemoreception Sciences, American Psychological Association

PUBLICATIONS:

Peer Reviewed Articles:

1. Benignus, V., Otto, D., Prah, J. D., and Ryan, L. (1976) Monitoring performance as a function of rate of ready signals. *Perceptual and Motor Skills*. 43, 815-821.

2. Benignus, V., Otto, D., Prah, J. D., and Benignus, G. (1977) Lack of effects of carbon monoxide on human vigilance, *Perceptual and Motor Skills*. 45, 1007-1014.

3. Otto, D. Benignus, V., and Prah, J. D. (1979) Carbon monoxide and human time discrimination: Failure to replicate Beard-Wertheim experiment. *Aviation Space and Environmental Medicine*. 50, 40-43.

4. Prah, J. D. and Benignus, V. (1979) Effects of ozone exposure on olfactory sensitivity. *Perceptual and Motor Skills*. 48, 317-318.

5. Benignus, V. and Prah, J. D. (1980) Flow thresholds of nonodorous air through the human naris as a function of temperature and humidity. *Perception and Psychophysics*. 27, 569-573.

6. Benignus, V. and Prah, J. D. (1981) A computer controlled vapor dilution olfactometer. *Behavior Research Methods and Instrumentation*. 12, 535-540.

7. Benignus, V. and Prah, J. D. Olfaction: Anatomy, Physiology and Behavior. (1982) *Environmental Health Perspectives*. 44,

15-21.

8. Otto, D., Muller, K., Barton, C., Seiple, K., Prah, J. D., and Schroeder, S. (1982) Effects of low to moderate lead exposure on slow cortical potentials in young children: Two year follow-up. *Neurobehavioral Toxicology and Teratology*. 4, 733-737.

9. Prah, J. D. and Benignus, V. (1984) Trigeminal sensitivity to contact chemical stimulation: A new method and some results. *Perception & Psychophysics*. 35, 65-68.

10. Benignus, V., Muller, K., Barton, C., and Prah, J. D. (1987) Effect of low level carbon monoxide on compensatory tracking and event monitoring. *Neurotoxicology and Teratology*. 9, 227-234.

11. Benignus, V., Muller, K., Smith, M., Pieper, K., & Prah, J. D. (1990) Compensatory tracking in humans with elevated carboxyhemoglobin. *Neurotoxicology and Teratology*. 12, 105-110.

12. Peele, D., Allison, S., Bolon, B., Prah, J. D., Jensen, K., & Morgan, K. (1991) Functional deficits produced by 3-methylindole-induced olfactory mucosal damage revealed by a simple olfactory learning task. *Toxicology and Applied Pharmacology* 107, 191-202.

13. Otto, D., Hudnell, K., and Prah, J. D. (1992) Methodological issues in human exposure studies of low level solvent mixtures. *Applied Psychology: an International Review*. 41, 239-245.

14. Benignus, V., Petrovik, M., Newlin-Clapp, L., and Prah, J. D. (1992) Carboxyhemoglobin and brain blood flow in humans. *Neurotoxicology and Teratology*. 14, 285-290.

15. Prah, J. D. and Benignus, V. (1992) Olfactory evoked responses to odorous stimuli of different intensities. *Chemical Senses*, 17, 417-425.

16. Evans, W. J., Kobal, G., Lorig, T., & Prah, J. D. (1993) Suggestions for collection and reporting of chemosensory event-related potentials. *Chemical Senses*, 18, 751-756.

17. Prah, J. D., Goldstein, G. M., Devlin, R., Otto, D., Ashley, D., House, D., Willingham, F., Cohen, K. L., and Gerrity, T. (1994) Sensory, symptomatic, inflammatory, and ocular responses to and the metabolism of methyl tertiary butyl ether in a controlled human exposure experiment. *Inhalation Toxicology*, 6, 521-538.

18. Ashley, D. & Prah, J. D. (1997) Time dependence of blood concentrations during and after exposure to a mixture of volatile organic compounds. *Archives of Environmental Health*, 52, 26-33.

19. Buckley, T. Prah, J. D., Ashley, D. Wallace L. Zweidinger, R. (1997) Body burden measurements and models to assess inhalation exposure to methyl tertiary butyl ether (MTBE). *Journal of the Air & Waste Management Association*. 47, 739-752.

20. Prah, J., Case, M. & Goldstein, G. Equivalence of Sensory responses to single and mixed volatile organic compounds at equimolar concentrations. *Environmental Health Perspectives*, 1998, 11, 739-744.

21. Prah, J., Blount, B., Cardinali, F., Ashley, D., Leavens, T. & Case, M. The development of a dermal exposure system for pharmacokinetic studies of administered and ambient water contaminants: methods and results. Under review at *Journal of Pharmacological and Toxicological Methods*. 2002,47,189-195.

23. James Prah, David Ashley, Benjamin Blount, Martin Case, T. Leavens, Joachim Pleil, & F. Cardinali. Dermal, Oral, and Inhalation Pharmacokinetics of Methyl tertiary Butyl Ether (MTBE) in Human Volunteers. *Toxicological Sciences*, 2004,77, 2, 195-205.

24. David Kim, J. Pleil, J. Prah, L. Nylander-French. Development of a Physiologically-Based Toxicokinetic Model for Dermal, Oral, and Inhalation Exposures to Methyl Tertiary Butyl Ether in Humans. Submitted to *Toxicological Sciences*.

Invited Lectures, Symposia:

Prah, J. D. Differentiating and controlling olfactory and trigeminal stimulation. Invited talk at a special session sponsored by NIH at Association for Chemoreception Sciences XIV, Sarasota FL. April, 1992.

Prah, J. D. Invited talk entitled: The effects of 3-methyl indole on the olfactory mucosa of rats and Member of Panel to discuss the role odorants in environmental effects at the Livestock Odor Control and Rural Development Meeting, Ames, IA. June 13-15, 1994.

Prah, J. D. Sensory, Symptomatic Effects, and Pharmacokinetics of MTBE at ambient levels. Workshop to Provide Guidance on the Feasibility and Design of Epidemiologic Studies among Populations exposed to MTBE. Research Triangle Park, NC. April 4-5, 1995.

Speaker: Relationship between Routes of Exposure and Blood levels of MTBE. Health Effects Institute Annual Conference, April 9-11, 2000, Atlanta, GA.

Speaker: Relationship between route of MTBE exposure and blood levels of MTBE and TBA. Federal-State Toxicology and Risk Analysis Committee. RTP, NC. November 1-3, 2000.

Speaker: Sensory, psychological, and psychophysiological aspects of the chemical senses in human exposure research. At "Odors, Irritants, and Toxicology". Annual Meeting of the Southeastern Regional Chapter of the Society of Toxicology. Johnson City, TN, October 18-19, 2001.